Product datasheet

Specification





brushless DC motor, Lexium ILA ILE ILS, 24 to 36V, CANopen DS301 interface, industrial connector, 122mm, without gearbox

ILE1F661PC1A0

Main

| Range of product | Lexium integrated drive | |
|---------------------------|--------------------------------------------|--|
| Product or component type | Motion integrated drive | |
| Device short name | ILE | |
| Motor type | Brushless DC motor | |
| Number of motor poles | 6 | |
| Network number of phases | phases Single phase | |
| [Us] rated supply voltage | 24 V 36 V | |
| network type | DC | |
| Communication interface | CANopen DS301, integrated | |
| Length | 122 mm | |
| Winding type | Medium speed of rotation and medium torque | |
| Electrical connection | Industrial connector | |
| Holding brake | Without | |
| Gear box type | Without | |
| Reduction ratio | 1:1 | |
| Nominal speed | 4000 rpm at 24 V 4800 rpm at 36 V | |
| Nominal torque | 0.175 N.m at 24 V 0.24 N.m at 36 V | |

Complementary

| Transmission rate | 50, 100, 125, 250, 500, 800 and 1000 kbauds | |
|---------------------------------------|---------------------------------------------|--|
| mounting support | Flange | |
| Motor flange size | 66 mm | |
| Number of motor stacks | 1 | |
| Centring collar diameter | 40 mm | |
| Centring collar depth | 2 mm | |
| Number of mounting holes | 4 | |
| Mounting holes diameter | holes diameter 4.4 mm | |
| Circle diameter of the mounting holes | 73.54 mm | |
| Feedback type | BLDC encoder | |

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

| Shaft end | Untapped | |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|--|
| Second shaft | Without second shaft end | |
| Shaft diameter | 8 mm | |
| Shaft length | 25 mm | |
| Supply voltage limits | 1840 V | |
| Current consumption | 7000 mA peak 5500 mA maximum continuous | |
| Associated fuse rating | 10 A | |
| Input/output type | 4 signals (each be used as input or output) | |
| Voltage state 0 guaranteed | -34.5 V | |
| Voltage state 1 guaranteed | 1530 V | |
| Discrete input current | 10 mA at 24 V on/STO_A for safety input 3 mA at 24 V on/STO_B for safety input 2 mA at 24 V for 24 V signal interface | |
| Discrete output voltage | 2325 V | |
| Maximum switching current | 100 mA per output 200 mA total | |
| Protection type | Safe torque off Short circuit of the output voltage Overload of output voltage | |
| Maximum supply current | 0.06 A at 36 V (power stage disabled) 0.1 A at 24 V (power stage disabled) 4.7 A at 24 V 5.1 A at 36 V | |
| Nominal output power | 117 W at 36 V 74 W at 24 V | |
| Peak stall torque | 0.26 N.m at 24 V 0.36 N.m at 36 V | |
| Continuous stall torque | 0.27 N.m | |
| Detent torque | 0.08 N.m | |
| Speed feedback resolution | 12 points/turn | |
| Accuracy error | +/- 1 ° | |
| Rotor inertia | 0.149 kg.cm² | |
| Maximum mechanical speed | 5000 rpm | |
| Maximum radial force Fr | 80 N | |
| Maximum axial force Fa | 30 N (force pressure) 30 N (tensile force) | |
| Service life in hours | 20000 h bearing | |
| marking | CE | |
| Type of cooling | Natural convection | |
| Net weight | 1.4 kg | |

Environment

IEC 50347 IEC 61800-3 Standards

EN 61800-3 : 2001-02

EN 61800-3:2001, second environment IEC 60072-1

IEC 50178 IEC 61800-3, Ed 2

| Product certifications | TÜV cUL UL | |
|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------|--|
| Ambient air temperature for operation | 5065 °C (with power derating of 2 % per °C) 050 °C (without derating) | |
| Permissible ambient air temperature around the device | 105 °C power amplifier 110 °C motor | |
| Ambient air temperature for storage | -2570 °C | |
| Operating altitude | <= 1000 m without derating | |
| Relative humidity | 1585 % without condensation | |
| Vibration resistance | 20 m/s² (f= 10500 Hz) 10 cycles conforming to IEC 60068-2-6 | |
| Shock resistance | 150 m/s² 1000 shocks conforming to IEC 60068-2-29 | |
| IP degree of protection | IP41 shaft bushing: conforming to IEC 60034-5 IP54 total except shaft bushing: conforming to IEC 60034-5 | |

Packing Units

| Unit Type of Package 1 | PCE |
|------------------------------|---------|
| Number of Units in Package 1 | 1 |
| Package 1 Height | 8.0 cm |
| Package 1 Width | 18.5 cm |
| Package 1 Length | 35.5 cm |
| Package 1 Weight | 1.8 kg |

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

| | Mercury Free | |
|----------|----------------------------|-----|
| ② | Rohs Exemption Information | Yes |
| | Pvc Free | |

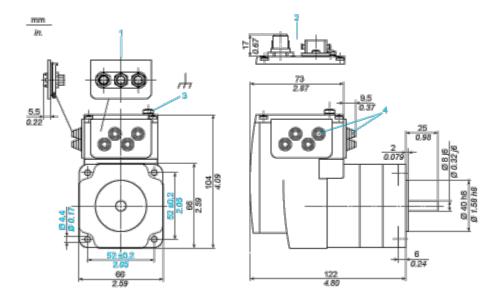
Certifications & Standards

| Reach Regulation | REACh Declaration |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Eu Rohs Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| China Rohs Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Weee | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile | End of Life Information |

Dimensions Drawings

Integrated Drive without Gearing

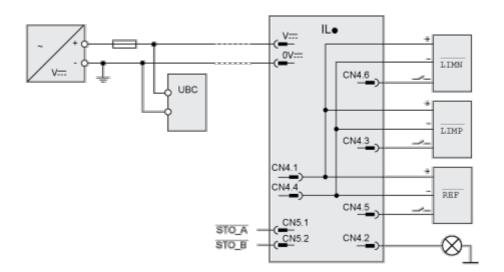
Dimensions



- 1 Accessories: I/O signal insert with industrial connectors
- 2 Option: industrial connectors
- 3 Earth (ground) terminal
- 4 Accessories: cable entries $\emptyset = 3 \dots 9 \text{ mm}/0.12 \dots 0.35 \text{ in.}$

Connections and Schema

Connection Example with 4 I/O Signals

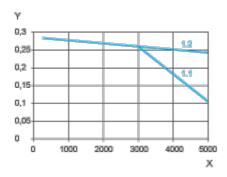


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Performance Curves

Torque Characteristics



- X Speed of rotation in rpm
- Y Torque in Nm
- 1.1 Max. torque at 24 V
- 1.2 Max. torque at 36 V